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Saskatchewan
Science Council

Science Council
Annual Report, 1980-81

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Annual Report of the Saskatchewan Science Council

for the period April 1, 1980 through March 31, 1981

Letters of Transmittal

Saskatchewan

Minister of Continuing Education

Legislative Building
Regina, Canada
S4S 0B3
(306) 565-7360

August 10, 1981

The Honourable C. Irwin McIntosh
Lieutenant Governor of the Province of Saskatchewan

Sir:

I have the honour to transmit herewith the Annual Report of the Saskatchewan Science Council for the year ending March 31, 1981.

Respectfully submitted,

The Honourable Doug McArthur
Minister of Continuing Education

Saskatchewan Science Council

August 10, 1981

The Honourable Doug McArthur
Minister of Continuing Education
Regina, Saskatchewan

Sir:

I have the honour to submit for your consideration the Annual Report of the Saskatchewan Science Council for the period April 1, 1980 to March 31, 1981.

Respectfully submitted,

P. N. Nikiforuk,
Chairman

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Saskatchewan Science Council Members, 1980-81

During the past year seven new members were appointed to the Saskatchewan Science Council, replacing members who had died or resigned, or whose appointments had expired. Five members continued from the previous year. The members of the Council for the period April 1, 1980, to March 31, 1981, were:

Chairman
Dr. P. N. Nikiforuk
Dean of Engineering
University of Saskatchewan
Saskatoon, Saskatchewan

Dr. J. M. Bell
Professor of Agricultural Science
College of Agriculture
University of Saskatchewan
Saskatoon, Saskatchewan

Dr. W. G. F. Caldwell
Head, Department of Geological Sciences
University of Saskatchewan
Saskatoon, Saskatchewan

Mr. P. Clarke
President
Key Lake Mining Corporation
Saskatoon, Saskatchewan

Mr. J. Hutch
Manager, Industrial Division
Saskmont Engineering Co. Ltd.
Saskatoon, Saskatchewan

Mrs. V. Lynne Pearson
Deputy Minister
Department of Consumer and Commercial Affairs
Regina, Saskatchewan

Dr. G. W. Blachford
Dean of Graduate Studies
University of Regina
Regina, Saskatchewan

Mr. E. B. Campbell
Executive Vice-President
Saskatchewan Power Corporation
Regina, Saskatchewan

Dr. S. O. Fedoruk
Professor of Oncology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

Dr. M. Evelyn Jonescu
Director
Canadian Plains Research Center
University of Regina
Regina, Saskatchewan

Dr. T. P. Pepper
Executive Director
Saskatchewan Research Council
Saskatoon, Saskatchewan

Mr. G. Shury
International Representative
Oil, Chemical & Atomic Workers
International Union
111-2709 12th Avenue
Regina, Saskatchewan

Chairman's Remarks

The past year has been a busy and difficult one for the Saskatchewan Science Council. It has been a busy year because of Council's active participation in the organization and management of The Energy Show that was held in October, 1980, in Saskatoon. As well, Council reviewed the report that had been prepared earlier for the Honourable D. F. McArthur by Pratt Management Limited on the role of the Saskatchewan Science Council and the Science Policy Secretariat. It also reviewed the report that described the first phase of the study that had been previously commissioned on farm machinery selection for Saskatchewan farms. Finally, it undertook the study of a number of topics that might lead to future background studies. It was a difficult year because the previous loss of the Science Policy Secretariat left the Council without a support staff to whom it could turn for professional and support services. If the Council is to operate effectively, such services will have to be made available to it in the near future.

The Council was pleased to be able to take part in the organization of The Energy Show. This Show was a vehicle for bringing to the attention of the people of Saskatchewan a number of relevant energy issues, especially the need for conservation. If attendance is a measure of success, this Show was very successful because of the very large number of people that attended the conference, the exposition, and the workshops.

The Council was pleased to be able to respond favorably to the report that had been prepared for the Honourable D. F. McArthur on the role of the Saskatchewan Science Council and the Science Policy Secretariat. This report addressed many of the problems that have troubled the Council since its inception. In particular, Council welcomed the suggestion that its mandate be reduced in scope and that its role be more clearly defined. As well, Council welcomed the recommendations made as to how the Council could communicate better with the government and the people of Saskatchewan. All of this is dealt with more fully in later sections of this report.

The appointment of seven new members to the Council is also very welcome. Their many years of experience in the sciences and engineering will do much to improve its operations.

I am sorry to report the utimely death of Mr. Robert A. Schweider. He was one of the original members of the Council and he will be sadly missed. Council extends its sincerest condolences to Mrs. Schweider and her family.

The assistance during the past year of Dr. A. J. Y. Guy, Special Advisor on Science and Technology, is very much appreciated. Without his assistance, the Council would not have achieved what it did.

Purpose and Duties

The Saskatchewan Science Council was established by *The Science Council Act*, proclaimed on April 11, 1975, for the purpose of acquiring, developing, and disseminating scientific and technological knowledge in order to promote the industrial, economic, and social development of the province. The duties of the Saskatchewan Science Council are:

(1) to consider all matters brought to its attention by the Minister and where required by the Minister to report its findings to him;

(2) to formulate, for the guidance of the public and the government, science policy for the development and application of scientific and technological information and processes;

(3) to communicate science policy to the government and any other interested persons;

(4) to advise the government on implementation of science policy;

(5) to gather and organize information on the scientific research needed and advise the government and other interested persons on matters related to scientific research;

(6) to facilitate discussions related to science policy with the Government of Canada, the government of any province, and any interested person; and

(7) to take whatever action is necessary to carry out the purpose of this Act.

Operating Guidelines

The Saskatchewan Science Council believes that it is a mechanism by means of which the people of Saskatchewan can explore options for the future industrial, economic, and social development of the province. In this regard, the primary contributions of the Council are in the identification of opportunities, options, and problems in the intermediate to long-term future. To achieve these goals, an appropriate series of background studies is required. These studies are now being developed by the Council.

Summary of Activities, 1980-81

During the past year, April 1, 1980 to March 31, 1981, the Saskatchewan Science Council was engaged in four areas. They are: The Energy Show that was held in Saskatoon October 23-26, 1980; a review of a report that had been prepared earlier for the Honourable D. F. McArthur by Pratt Management Limited on the role of the Saskatchewan Science Council and the Science Policy Secretariat; a review of the study that had been previously commissioned on machinery selection for Saskatchewan farms; and a series of background studies for possible future in-depth investigation. As well, Council dealt with a number of inquiries pertaining to some of its previous studies and publications.

The Energy Show

The main activity of the Saskatchewan Science Council during the past year was that of participating in the organization and management of The Energy Show that was held in Saskatoon from October 23 to 26, 1980. As was reported in last year's annual report, The Energy Show was the major energy forum in Canada during 1980. It had three major components: a conference, an exposition, and a series of workshops. The chairman of the Saskatchewan Science Council served on the management and conference committees and chaired the workshops committee. If attendance is a measure of success, then The Energy Show was very successful in that 973 people registered for the conference, over 80,000 attended the exposition, and 830 registered for the workshops. As well, several hundred other people attended the special workshop sessions that were presented at the exposition.

The Energy Show developed out of an invitation that Celebrate Saskatchewan sent in early 1979 to government departments, crown corporations, and others for proposals for events and activities pertinent to themes being developed for celebrating the province's seventy-fifth anniversary. Proposals for energy and resource expositions for Saskatoon for late 1980 were put forth by the Department of Environment, the Department of Mineral Resources, the Saskatchewan Oil and Gas Corporation, and the Saskatchewan Mining Development Corporation. Subsequently, representatives from these agencies, the Department of Industry and Commerce, the Crown Investments Corporation, Saskatchewan Power, the City of Saskatoon, and the Saskatchewan Science Council explored the proposals and agreed on a combined approach involving a conference, an exposition, and a series of technical workshops. The Saskatchewan Science Council agreed to serve on the management committee and on the conference committee. As well, it agreed to chair the workshops committee.

At this point it might be of use to explain why the Saskatchewan Science Council decided to participate in this activity. It must be noted in this regard that a general purpose of the Council, according to the *Act*, is to acquire, develop, and disseminate scientific and technological knowledge in order to promote the industrial, economic, and social development of the province. The Council felt that The Energy Show served such a purpose, since its objectives were:

- to inform and educate the Saskatchewan public in matters concerning energy supply and energy use;
- to provide a public forum for the discussion of positive approaches to energy management;
- to explore new developments and emerging trends in energy research and development and the application of such technology; and
- to encourage the adoption of energy conserving and efficient technologies by all sections of the Saskatchewan economy.

As well, the Saskatchewan Science Council was in a unique position to bring together the expertise, skills, and experience of such agencies in the province as the National Research Council, Saskatchewan Research Council, University of Regina, University of Saskatchewan, and Kelsey Institute.

To achieve these overall objectives, the three components of The Energy Show were designed for specific audiences. The conference was designed as an educational event for an audience of middle to senior management personnel, and it dealt primarily with the first two objectives of The Energy Show. It included several plenary sessions featuring major addresses by individuals from the public and private sectors and a number of concurrent sessions that related to specific topics. The overall emphasis was on the Saskatchewan energy position set within Canadian and world contexts. The exposition was also an educational event, but its target audience was the public of Saskatchewan. To make the public better aware of the energy issues, exhibits were encouraged which would inform and educate the public on matters concerning energy supply and demand, new developments and emerging trends in energy research, and the application of such technologies. As such, exhibits were sought from all levels of government, universities, schools, societies, energy producers, and energy users. They were also sought from agriculture, industry, and the commercial sector, providing that the exhibits clearly demonstrated energy conserving features, or alternative energy sources. The workshops were designed for the purpose of encouraging the adoption of energy conservation and energy efficient technologies in various sectors of the Saskatchewan economy. These sectors included new housing, existing housing, agriculture, transportation, renewable energy resources, and non-renewable energy resources.

The general conclusion of the members of the Council is that the time and effort devoted to The Energy Show were well invested and that the Council should be prepared to take part in similar activities in the future.

The Role Report

Although *The Science Council Act* of 1975 created the Saskatchewan Science Council and a Science Policy Secretariat, the Council did not become active until 1977. The Secretariat, however, commenced operations in the fall of 1975 and by late 1978 had a staff of ten. In early 1979, the Secretariat was reduced to two positions, the Director and his secretary, as a result of budget cutbacks. The Director retired in mid-1979 and since that time the Council has had no support staff.

By mid-1979, the Council had identified a number of problems. In particular, the mandate assigned to the Council was far too broad and it was experiencing some difficulty defining a suitable role for itself

appropriate to its resources. There was also a need to establish means for communicating better with the government and the people of Saskatchewan. These problems were communicated to the responsible Minister, the Honourable D. F. McArthur, who initiated a review of the role of the Council and the Secretariat in relation to government and public needs. A report on this review was released in July, 1980.

The members of the Saskatchewan Science Council studied this report in some detail and their response to it has been mainly favorable. The problems facing the Council are clearly identified and a number of proposals are put forth with which the Council is in general agreement. In particular, Council agrees that it should not perform scientific research, provide specialized technical advice, or allocate research funds. It also agrees that while it can play a role in broadly advising the government on science and technology, it should not be seen as the developer of a comprehensive science policy. There is, however, a strong potential role for the Council in promoting an awareness of the impact of science and technology, particularly with regard to the intermediate and long-term future, in fostering the improved use of existing technological resources, in exploring the case for further investment in technology, and in serving as a provincial point of contact on the subject of science and technology. The Council also agrees that it should keep its scope within manageable proportions by advising the government and the public mainly through the publication of substantive papers on carefully selected topics.

The Council insists that it must remain independent, but this does not mean that members may not be selected from government departments and the crown sector if this would benefit its operation. The Council also believes that the Science Secretariat, provided for in the Act, should work fully under its direction and that initially it should consist of a director and a secretary. The Secretariat would concentrate on defining requirements, administering the development of papers, and generally supporting Council's efforts to communicate with the government and the public. Substantive papers required by the Council would be prepared by means of contracted services.

Machinery Selection on Saskatchewan Farms

In March, 1979, the Council commissioned a study into machinery selection on Saskatchewan farms. The decision to proceed with this study arose from Council's concern that Saskatchewan farmers, because of their high degree of mechanization, are particularly vulnerable to changes in energy prices and supply. The purpose of this study is to try to develop a set of guidelines which would permit a Saskatchewan farmer to select the optimum size of his machinery taking into consideration such factors as type of farm, size of farm operation, acreage, soil types, topography, and other factors. This study was contracted out to the College of Agriculture and the College of Engineering at the University of Saskatchewan. A pilot study was completed in the fall of 1979 and authority to proceed with the main study was approved by Council in November, 1979. This main study has now been completed and a report on the work received. Council is in the process of examining this report prior to deciding what conclusions should be drawn from it and what recommendations, if any, should be made.

Future Background Studies

If the Saskatchewan Science Council is to fulfill its mandate, it is essential that members of the Council continuously gather and organize information which will allow it to identify future opportunities, options, and problems. For this reason, Council recently selected six areas for possible future study. They include: water supply and quality, transportation, uranium development, science education, science and technology in Saskatchewan, and resource conservation and agriculture. While much research has already been done, and is being done, in most of these areas, Council is trying to determine which factors are of particular importance and concern to Saskatchewan, and to what extent, if any, additional work must be done of them. In this regard, subcommittees were appointed to review each of these areas in some detail and to report to Council by the end of 1981. It is expected that a decision will be made at that time as to what specific aspects of each of these areas will be investigated further.

Statement of Expenditure, 1980-81*

Science Council

Printing and Special Services	$1,710.00
Honoraria	200.00
Travel and Sustenance	106.00
Education and Health Tax	85.50
Sub-total I	$2,101.50

Special Advisor on Science and Technology

Salaries	$30,148.91
Travel and Sustenance	2,947.63
Computer Services	1,219.50
Miscellaneous Contractual Services	5,581.00
Printing and Special Services	1,058.38
Provisions	308.97
Rent of Space and Equipment	521.56
Telephones	3,060.43
Education and Health Tax	112.98
Sub-total II	$44,959.36
Grand Total	**$47,960.86**

***Note:**

An itemized comparison of expenditures with those of previous years is not appropriate, because creation of the new office of the Special Advisor on Science and Technology has altered the expenditure reporting format. Science Council expenditures in 1979-80 totalled $13,368.36.